



Parks

Bronx Park East Botanical Garden Pedestrian Ramp

Located near Bronx Park East and Waring Avenue, in the Borough of The Bronx.

Commissioner Review

October 5, 2022

Total Budget: \$4.0m
Speaker Corey D. Johnson (Adrienne E. Adams),
CM Oswald Feliz, CM Kevin C. Riley, Bronx Delegation, FY22

Project Size: 0.8 ac

Goals

- Create an ADA-accessible path to the New York Botanical Garden East Gate
- Minimize impact to existing trees

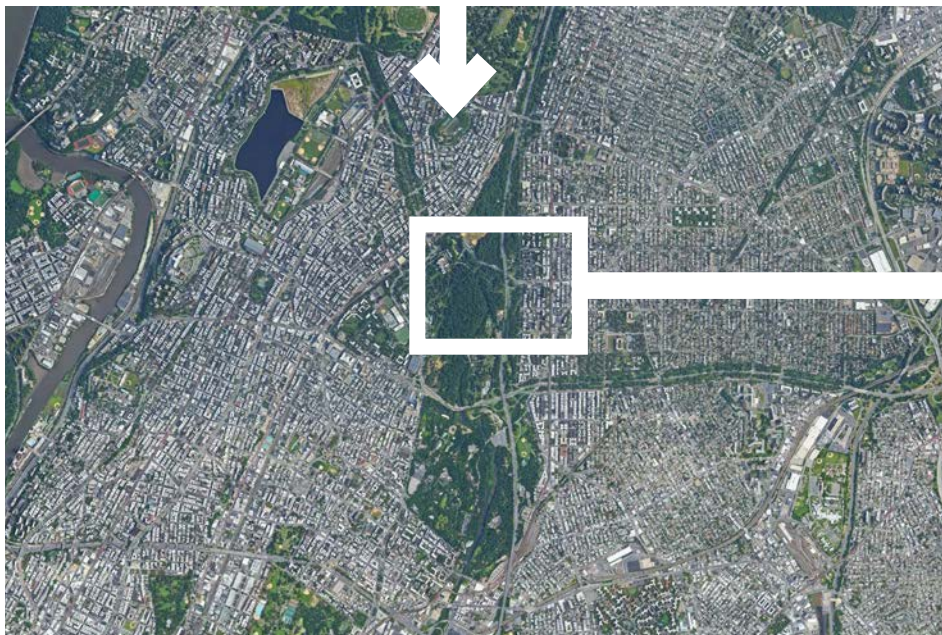




Bronx

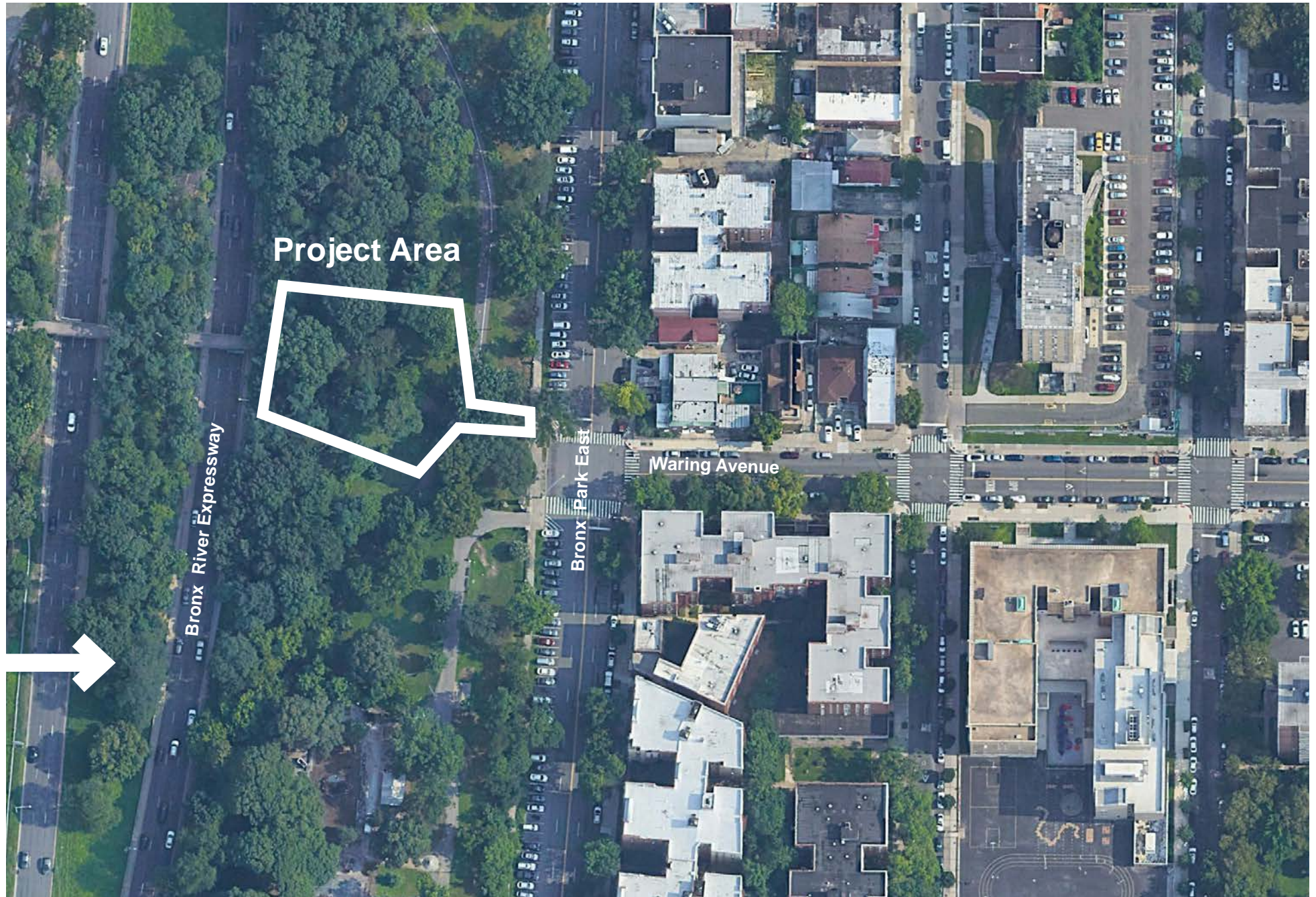
City

4 MI



Neighborhood

2000 FT



Project Area

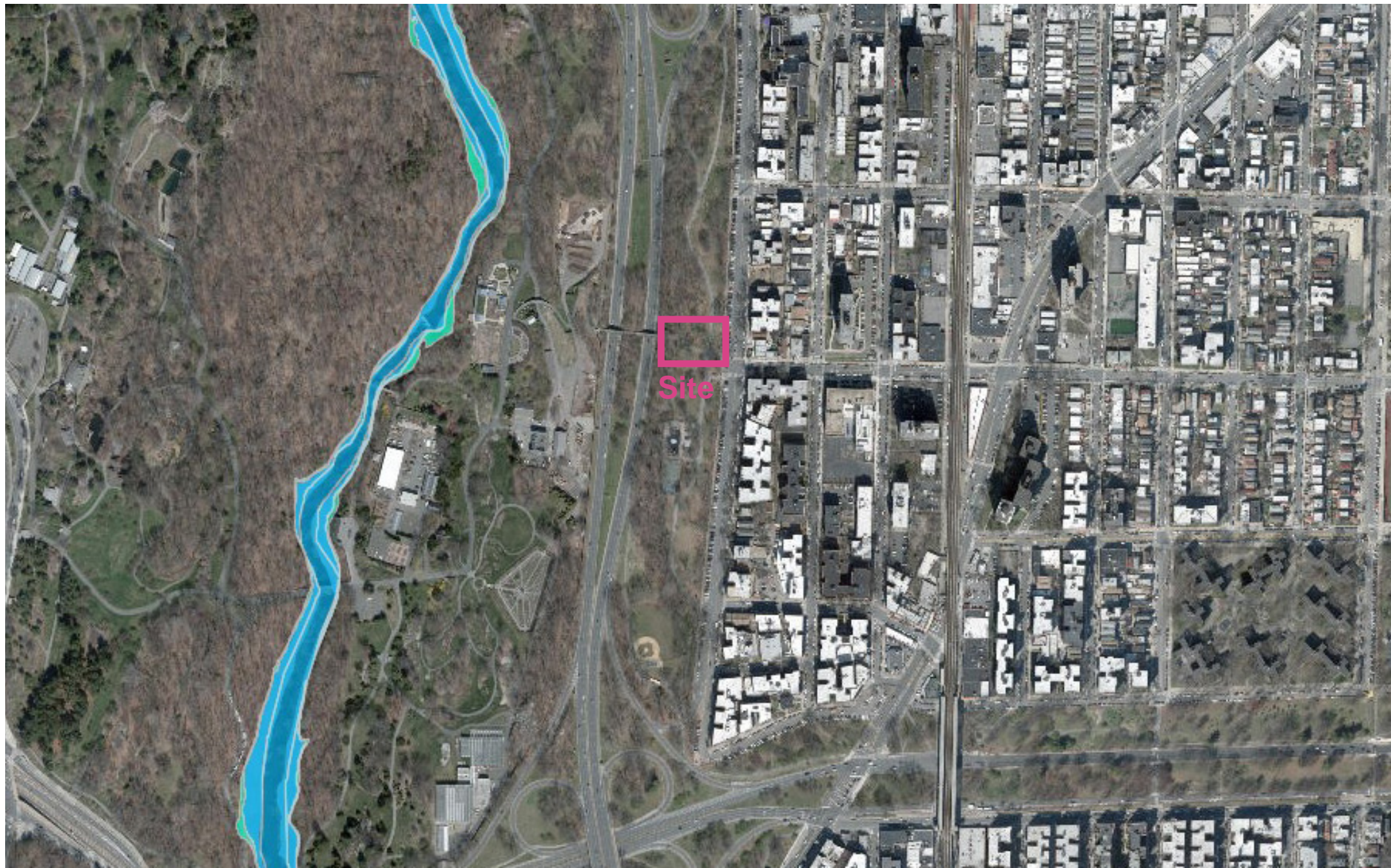
Site

100 FT



NYC Parks

Bronx Park East Botanical Garden Pedestrian Access Ramp | Project Location



Base Flood Elevation (BFE):

Flood Hazard Zones

2015 Preliminary Flood Insurance Rate Map

V Zone (100-year floodplain subject to wave action)

Areas along coasts subject to inundation by the 1% annual chance flood event with additional hazards associated with storm-induced waves.

A Zone (100-year floodplain)

Areas subject to inundation by the 1% annual chance flood event.

Shaded X Zone (500-year floodplain)

Areas within the 0.2% annual chance floodplain, areas of 1% annual chance flooding where average depths are less than 1 foot, areas of 1% annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1% annual chance flood by a levee.

Limit of Moderate Wave Action (LiMWA)

The inland limit of the area expected to receive 1.5ft or greater breaking waves during the 1% annual chance flood event. Data from 2015 PFIRMs.

Future Floodplain 2050s

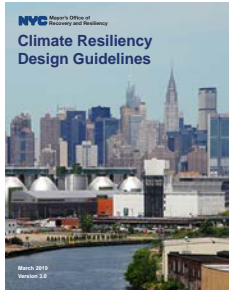
Future 1% Annual Chance Floodplain (100-year)

Future 0.2% Annual Chance Floodplain (500-year)

Resources (Links):



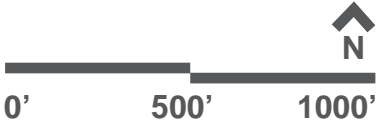
NYC Parks: Design and Planning for Flood Resiliency



NYC MOCR: Climate Resiliency Design Guidelines (v4.0)

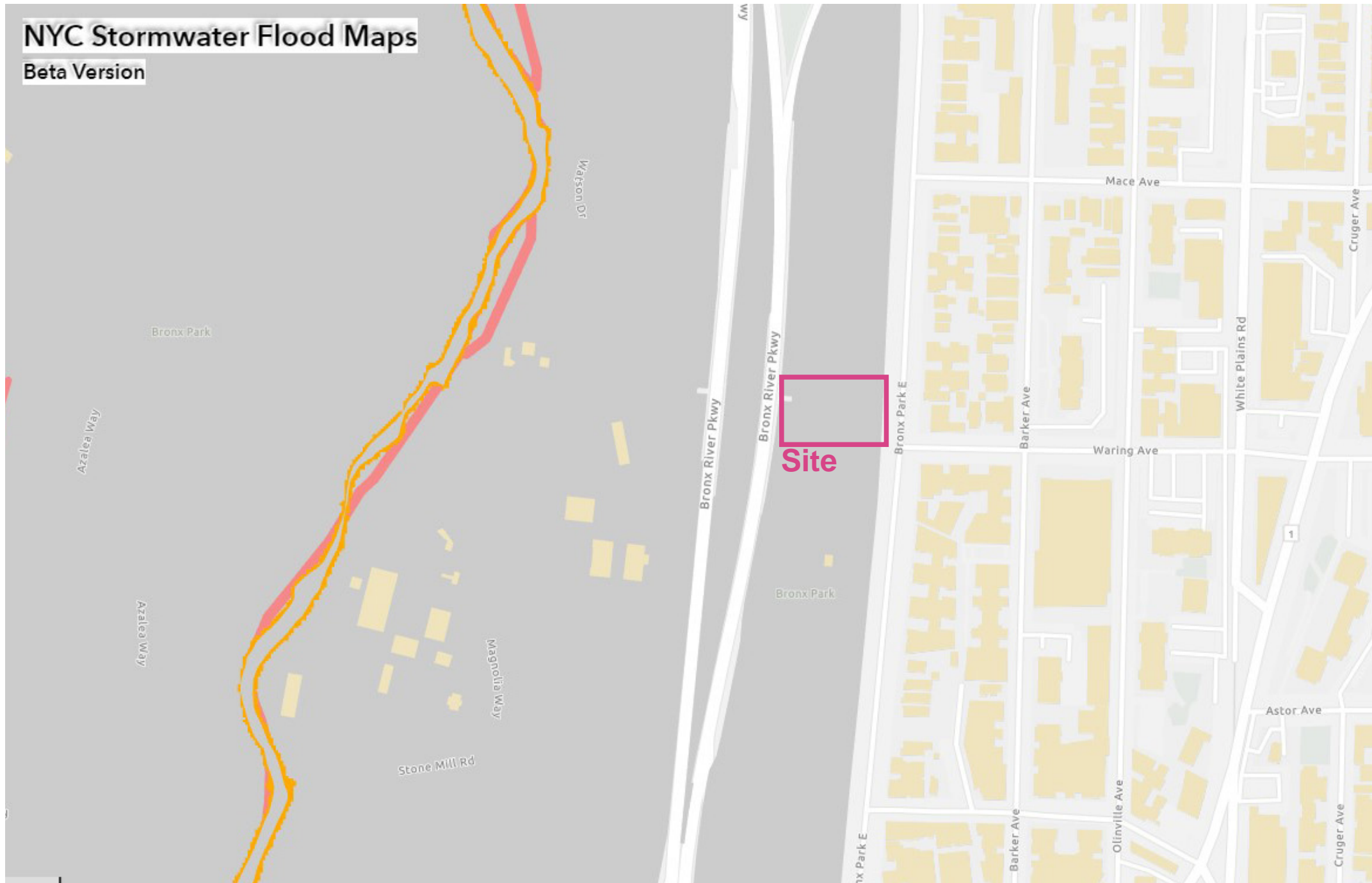


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NYC Stormwater Flood Maps

Beta Version



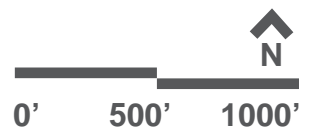
NYC Stormwater Flood Maps (Moderate Flooding)

- Area not included in analysis
- Future High Tides 2050
- National Wetlands Inventory
- Deep and Contiguous Flooding (1ft and greater)
- Nuisance Flooding (greater or equal to 4 in and less than 1 ft)

This map:

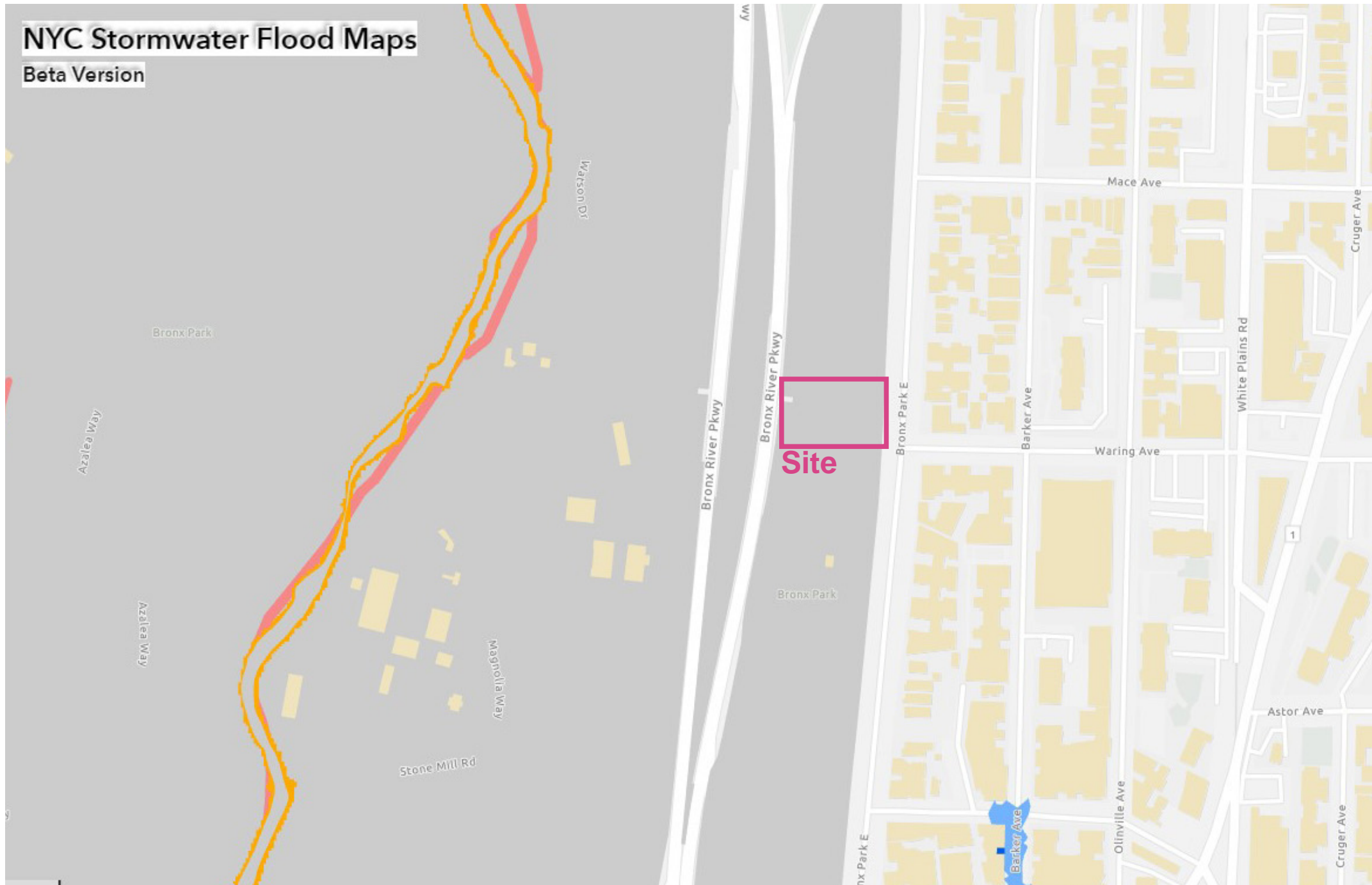
- Reflects roughly two inches of rain falling in one hour (also referred to as the 10-year storm, with approximately 10 percent chance of occurrence in any given year)
- Shows a moderate rainstorm that City infrastructure was not designed to handle.
- Reflects 2.5 feet of sea level rise, which is a high estimate for the 2050s.
- Includes impacts of potential blocked storm drains and outfalls from sea level rise.

Flooding from a storm like this would temporarily disrupt transportation and enter buildings and basements, causing minor damages to contents and surfaces.



NYC Stormwater Flood Maps

Beta Version



NYC Stormwater Flood Maps (Extreme Flooding)

- Area not included in analysis
- Future High Tides 2080
- National Wetlands Inventory
- Deep and Contiguous Flooding (1ft and greater)
- Nuisance Flooding (greater or equal to 4 in and less than 1 ft)

This map:

- Reflects roughly 3.5 inches of rain falling in one hour (also referred to as the 100 year storm, with approximately 1 percent chance of occurrence in any given year).
- Shows an extreme rainstorm that City infrastructure was not designed to handle.
- Reflects 4.8 feet of sea level rise, which is a high estimate for the 2080s.
- Includes impacts of potential blocked storm drains and outfalls from sea level rise.

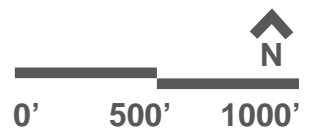
Flooding from a storm like this would:

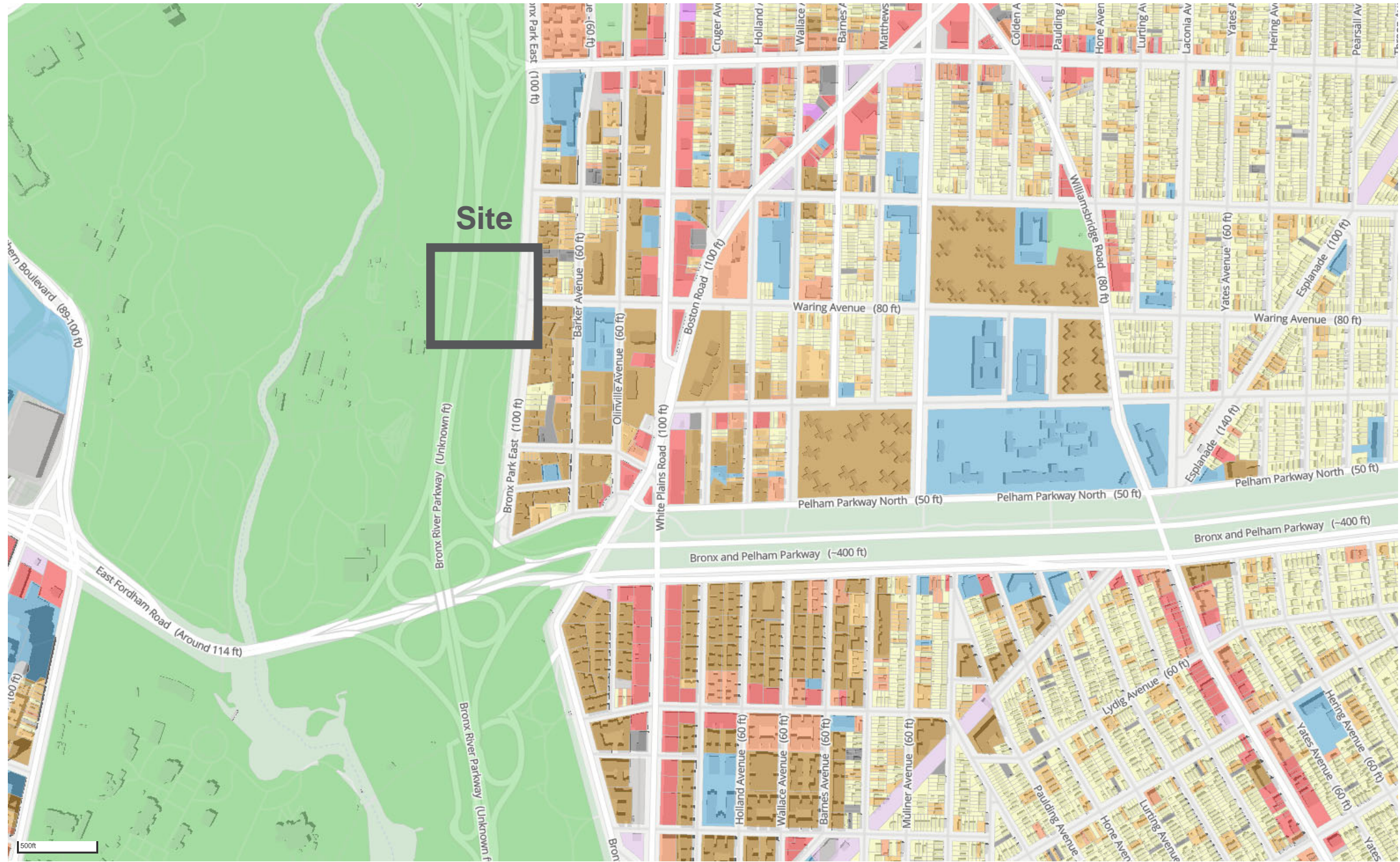
- Cause widespread damage and disruption to both private and public property.
- Disrupt roads, subways, regional rail, and potentially power/communication networks.
- Cause flooding across coastal neighborhoods due to sea level rise impacts.



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Bronx Park East Botanical Garden Pedestrian Access Ramp | Flood Risk (Stormwater)





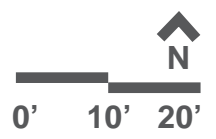
Land Use Categories

- 1 And 2 Family Residential
- Multi-Family Residential (Walkup)
- Multi-Family Residential (Elevator)
- Mixed Use
- Commercial & Office
- Industrial & Manufacturing
- Transportation / Utilities
- Public Facilities & Institutional
- Open Space And Outdoor Recreation
- Parking
- Vacant Land
- Other



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Bronx Park East Botanical Garden Pedestrian Access Ramp | Surrounding Land Use




Botanical Garden Mosholu Entrance
34 minute walk from East Gate Entrance

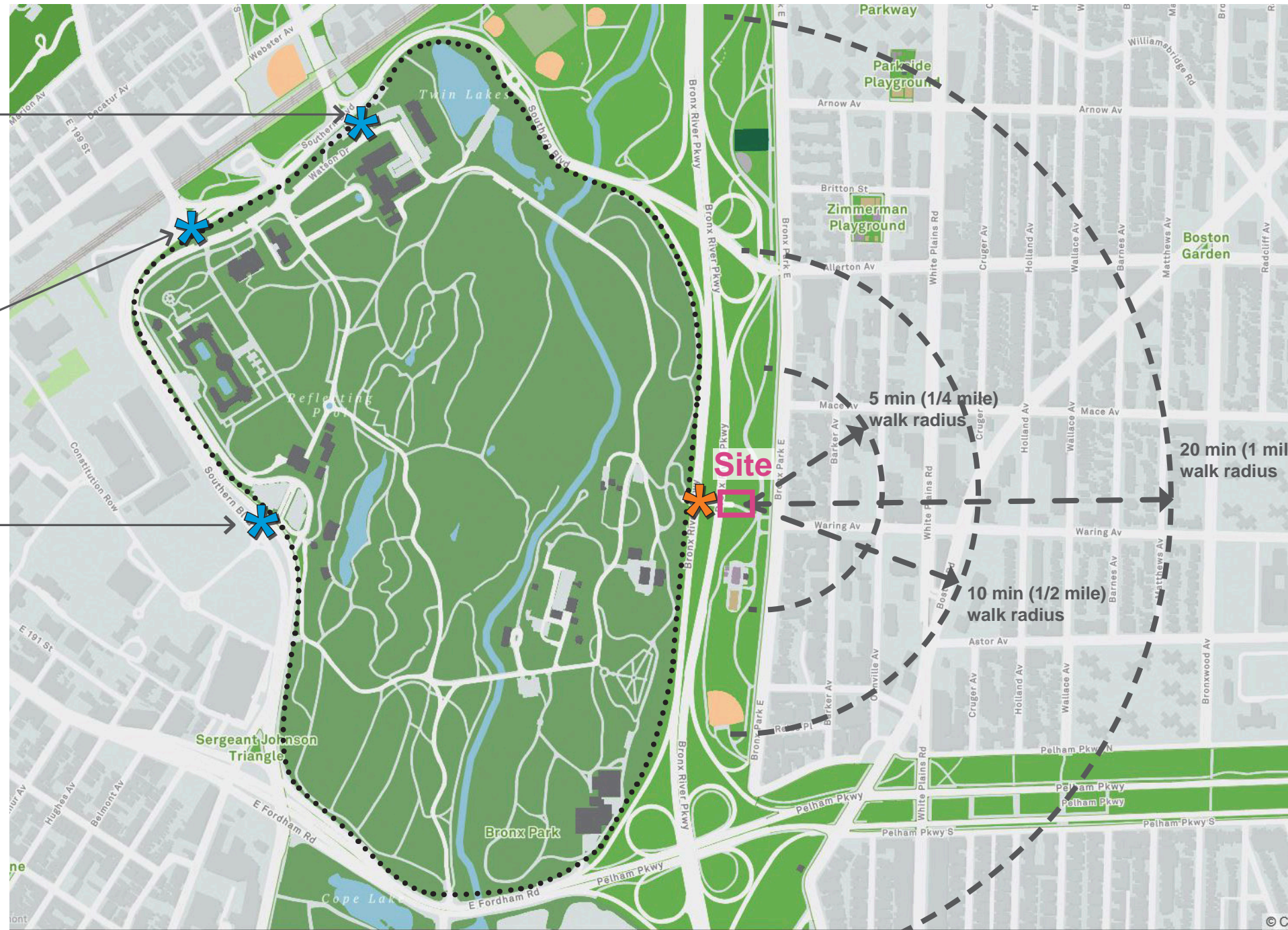
Botanical Garden Bedford Gate (Seasonal)
40 minute walk from East Gate Entrance

Botanical Garden Main Entrance
37 minute walk from East Gate Entrance

 **Botanical Garden East Gate Entrance (non-ADA accessible)**

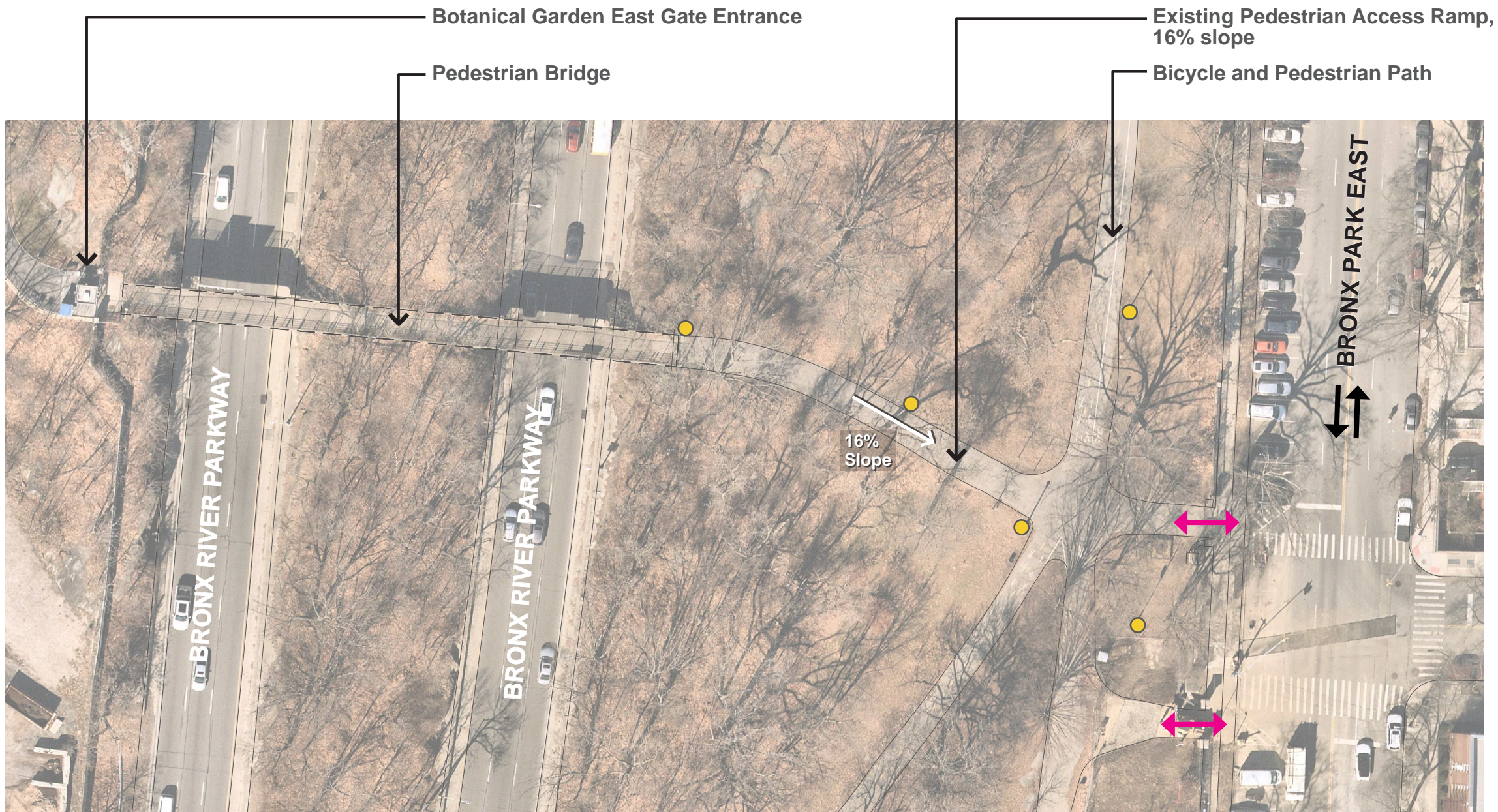
 **Botanical Garden Entrances (ADA accessible)**

 **New York Botanical Garden perimeter**



Bronx Park East Botanical Garden Pedestrian Access Ramp | Neighborhood Context





Legend

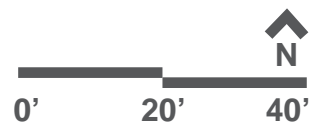
- Park Entrance
- Parks Lightpole
- Traffic

Park Tree Canopy Information

64.2% Parkland Canopy Cover
 2.1% Canopy Change 2010-2017



Bronx Park East Botanical Garden Pedestrian Access Ramp | Existing Conditions





Legend

-  Project Limit
-  Park Entrance
-  Parks Lightpole
-  Traffic
-  Pedestrian Traffic
-  Bicycle Traffic
-  Non-ADA-compliant asphalt ramp
-  Tree encroaching on ramp
-  Forested Area

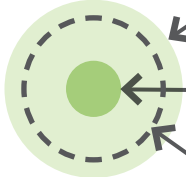








Bronx Park East Botanical Garden Pedestrian Access Ramp | Site Analysis



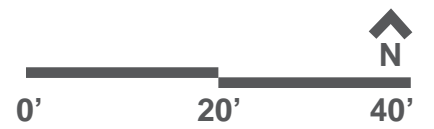


Legend

-  Canopy
-  Structural Root Zone
-  Critical Root Zone
-  Stump Removal
-  Tree Removal due to poor condition
-  Tree Removal due to design considerations
-  Tree to be transplanted



Bronx Park East Botanical Garden Pedestrian Access Ramp | Tree Inventory



DEP Unified Stormwater Rule

- Project is not anticipated to disturb greater than 20,000 SF of soil during construction;
- Project is not anticipated to create 5,000 sf of NEW Impervious Surface;

DEP Stormwater Management and Permitting will not be required.

- Project is anticipated to create 2000 sf of NEW Impervious Surface;
A DEP Site Connection Proposal will be required.





1 - entrance along Bronx Park East at Waring Avenue



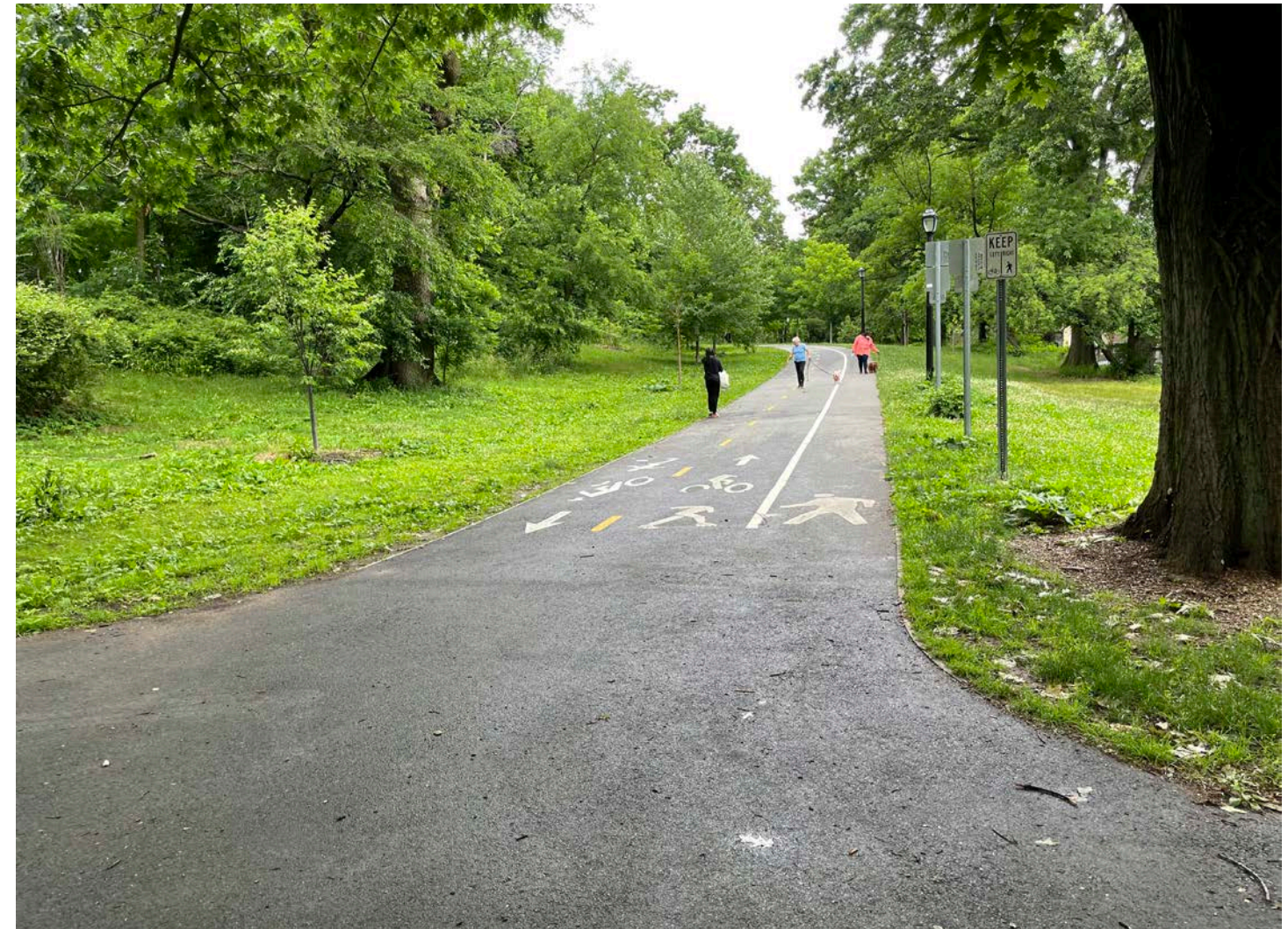


1 - wide-angle view of project area, looking up ramp

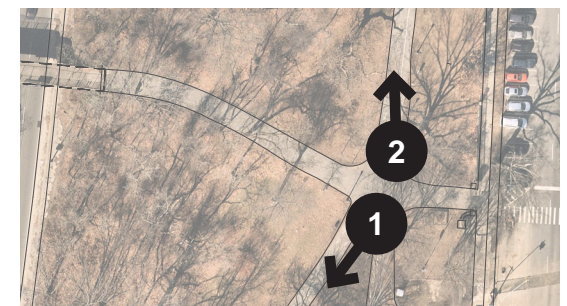


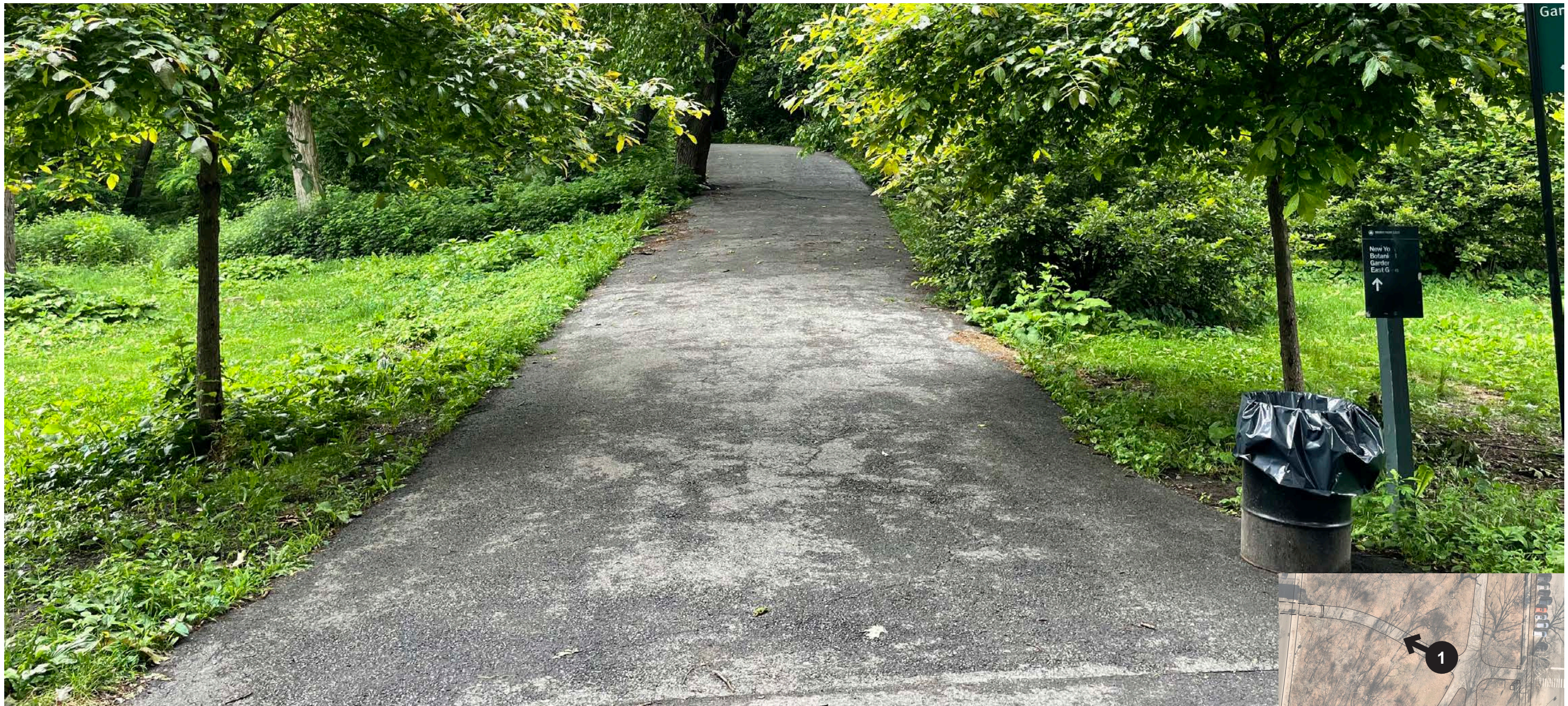


1 - view south towards Waring Playground



2 - view north of multi use bicycle and pedestrian trail

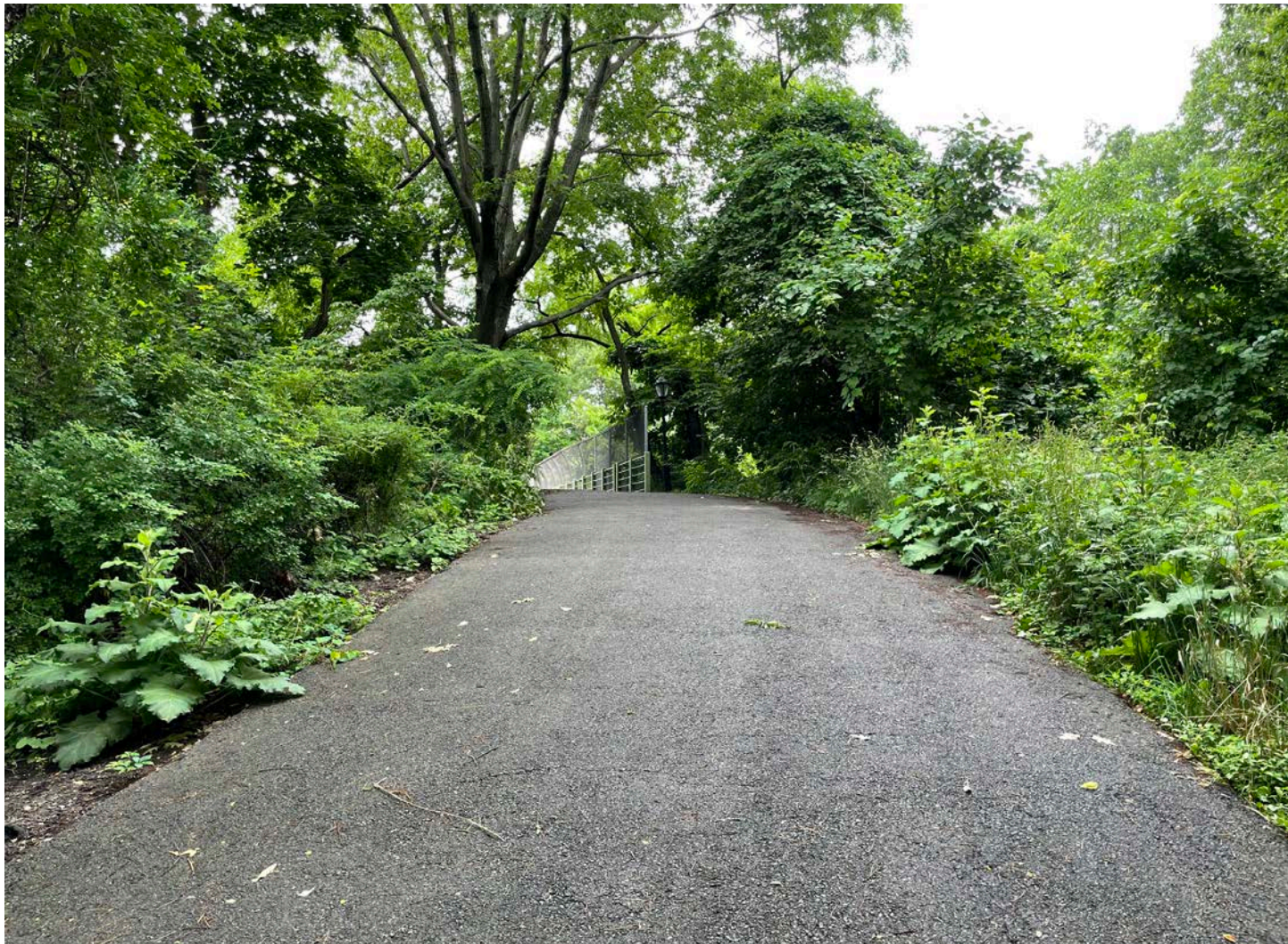




1 - view up ramp



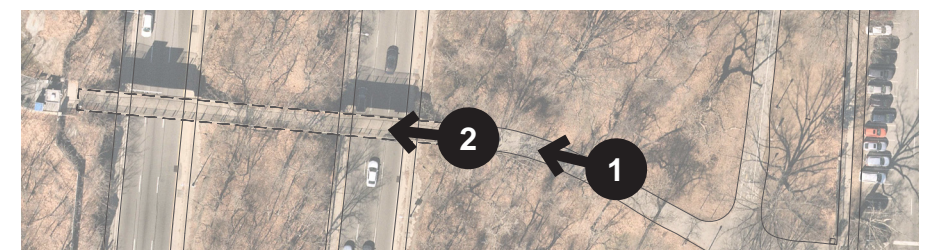
Bronx Park East Botanical Garden Pedestrian Access Ramp | Site Photos



1 - view up ramp showing bridge

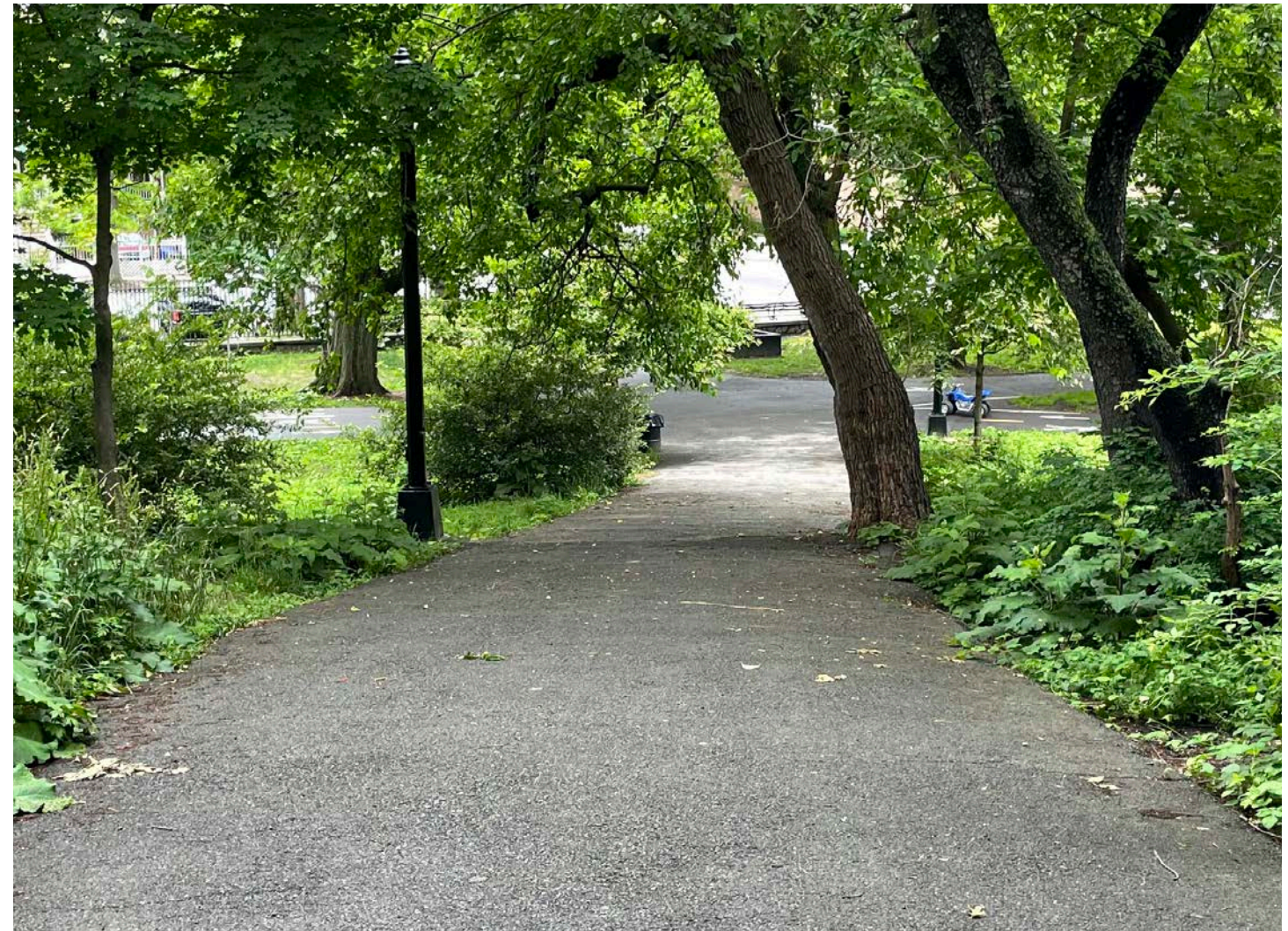


2 - view across bridge to Botanical Garden East Gate Entrance

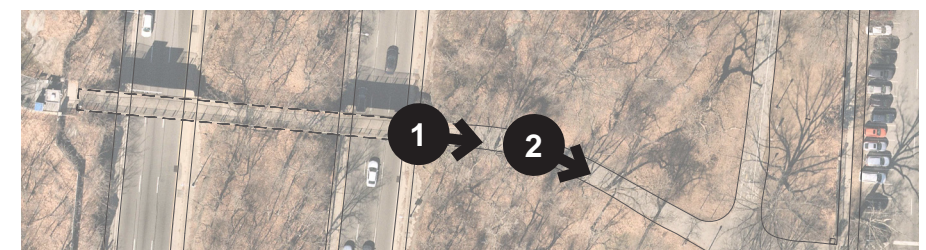




1 - view of top of ramp connection to bridge



2 - view down ramp, showing encroaching tree and light pole





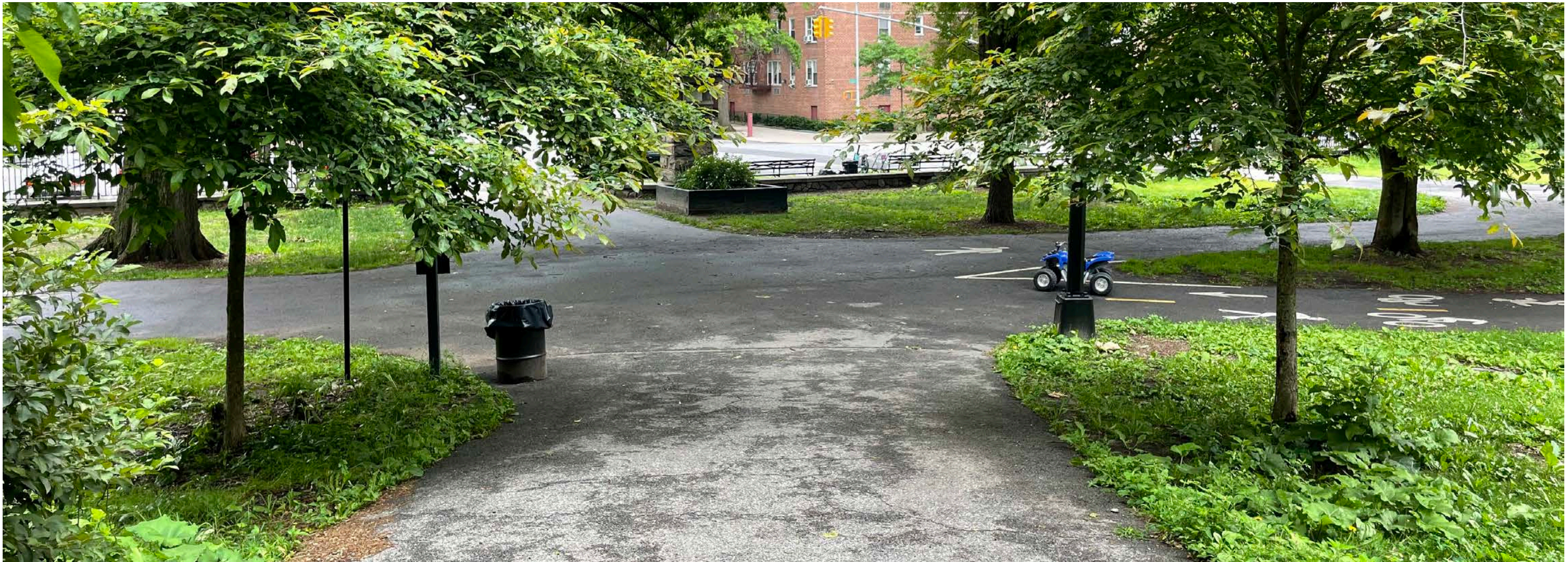
1 - midway down ramp, showing encroaching tree and bottom of ramp



2 - view of bottom of ramp



Bronx Park East Botanical Garden Pedestrian Access Ramp | Site Photos



1 - View of bottom of ramp





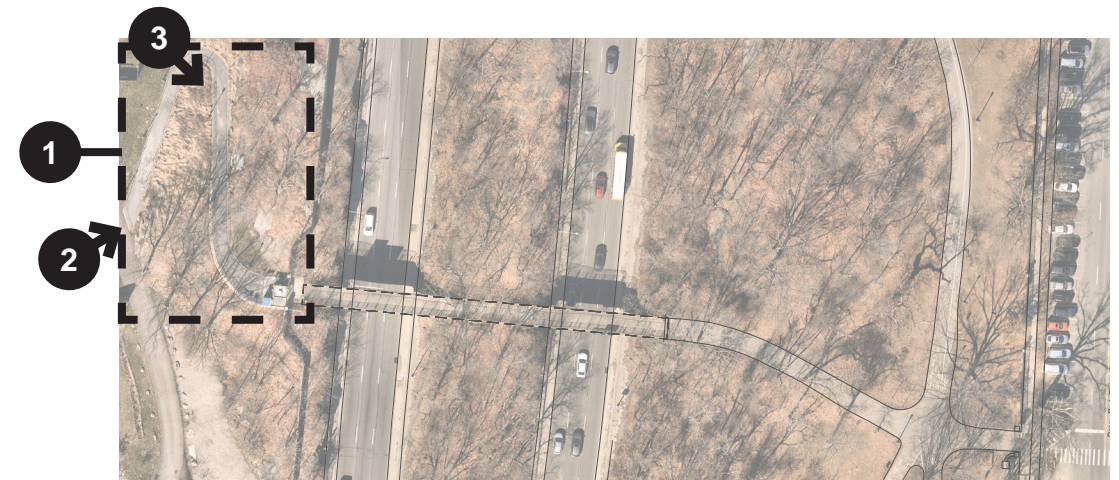
1 - Ramp at New York Botanical Garden



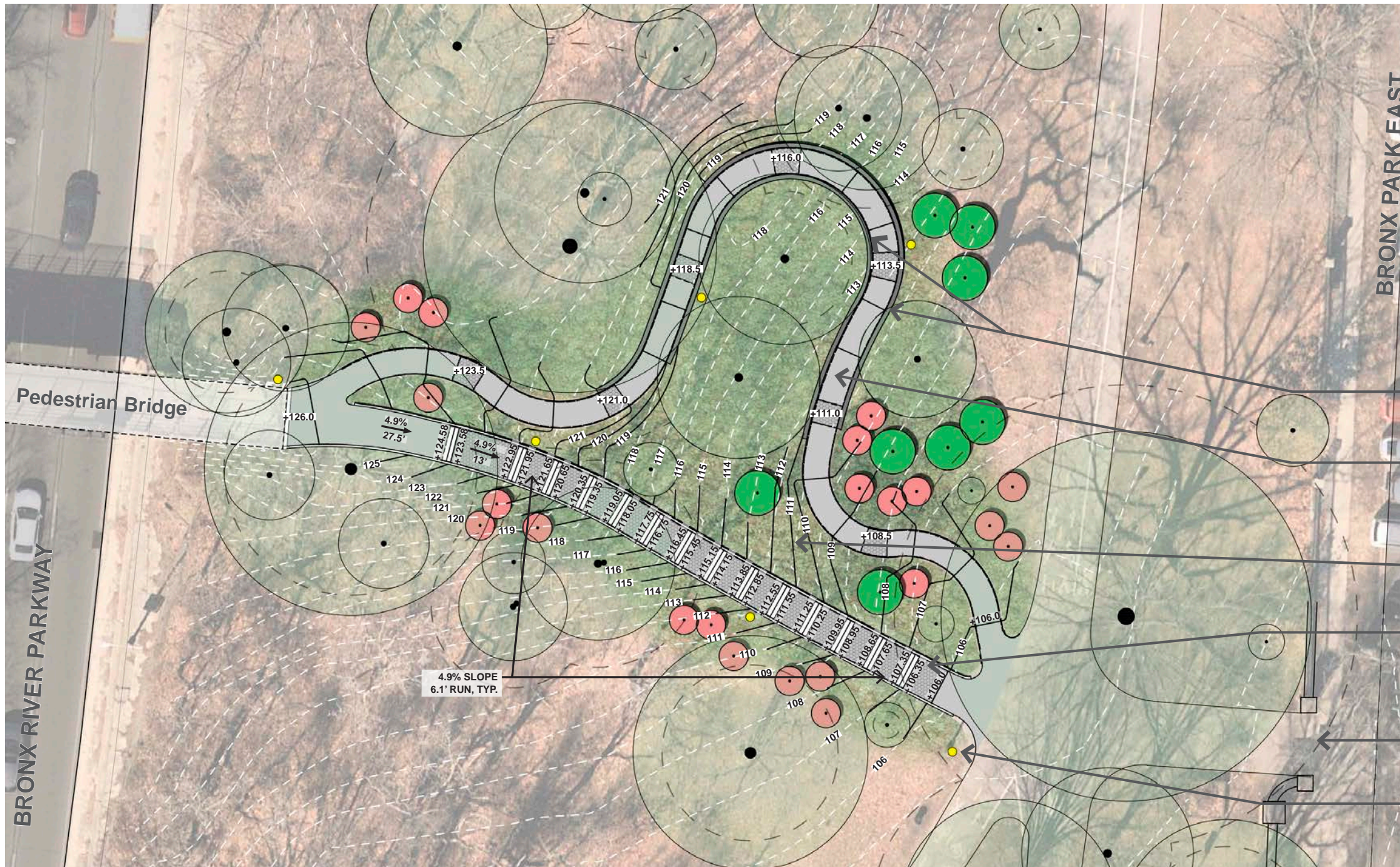
2 - Bottom of Ramp










3 - Middle of ramp









Bronx Park East Botanical Garden Pedestrian Access Ramp | Ramp at New York Botanical Garden



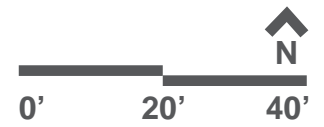
Legend

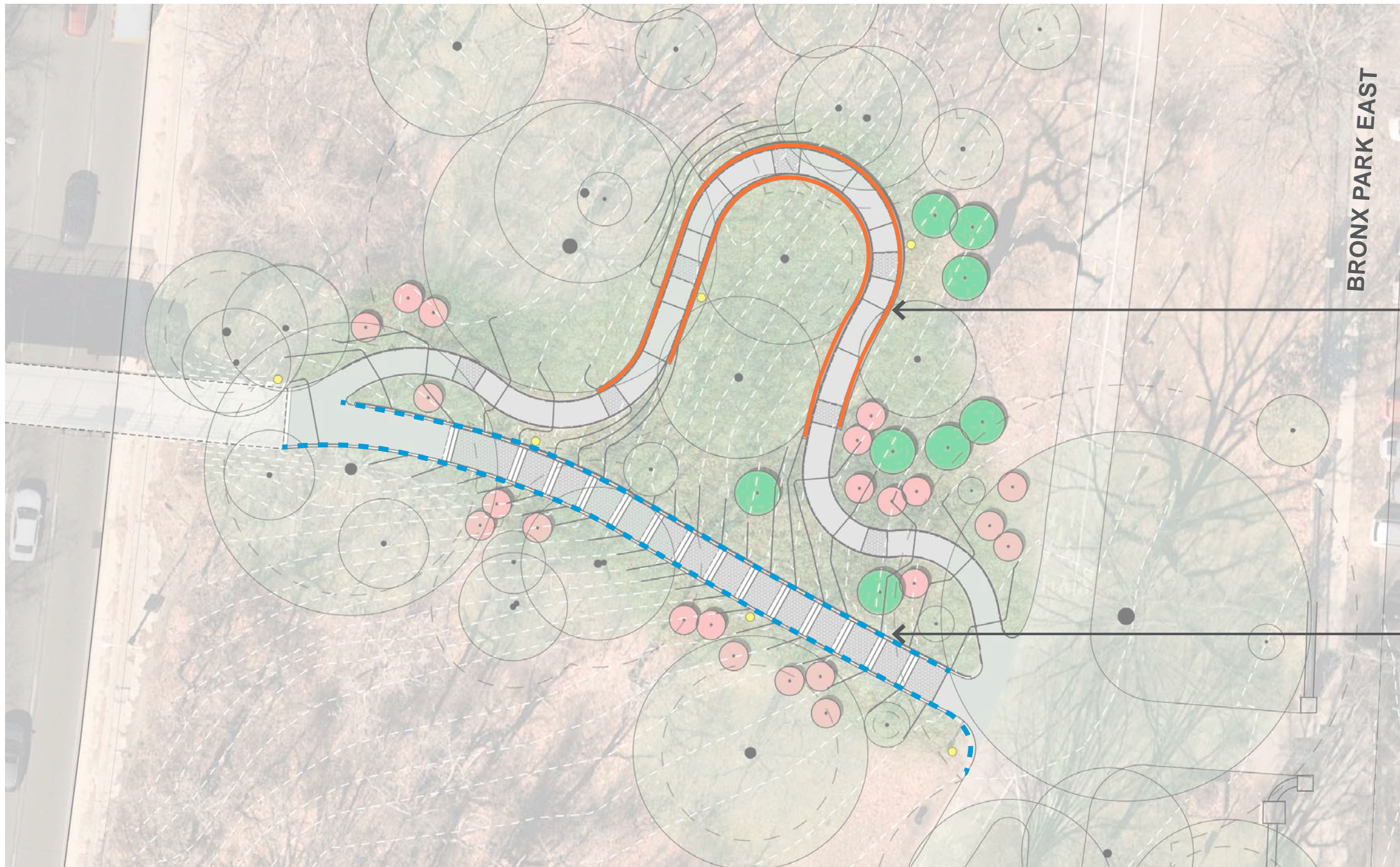
-  Canopy
-  Existing Tree
-  Critical Root Zone
-  Proposed Canopy Tree
-  Proposed Understory Tree
-  Light Pole
-  Proposed Contour

-  Retaining wall on piers
-  6' wide 8% ADA-compliant ramp, with concrete retaining walls in select locations
-  Shrubs and Groundcover
-  8' Wide Step-ramp, with concrete curb edges, and hex pavers between steps
-  Entrance at Sidewalk
-  Light Pole



Bronx Park East Botanical Garden Pedestrian Access Ramp | Schematic Plan





Legend

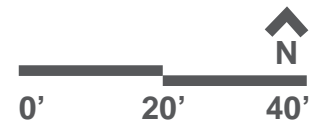
- Concrete Retaining Wall on Piers
- - - Concrete Curb

Retaining wall on piers

Concrete Curb



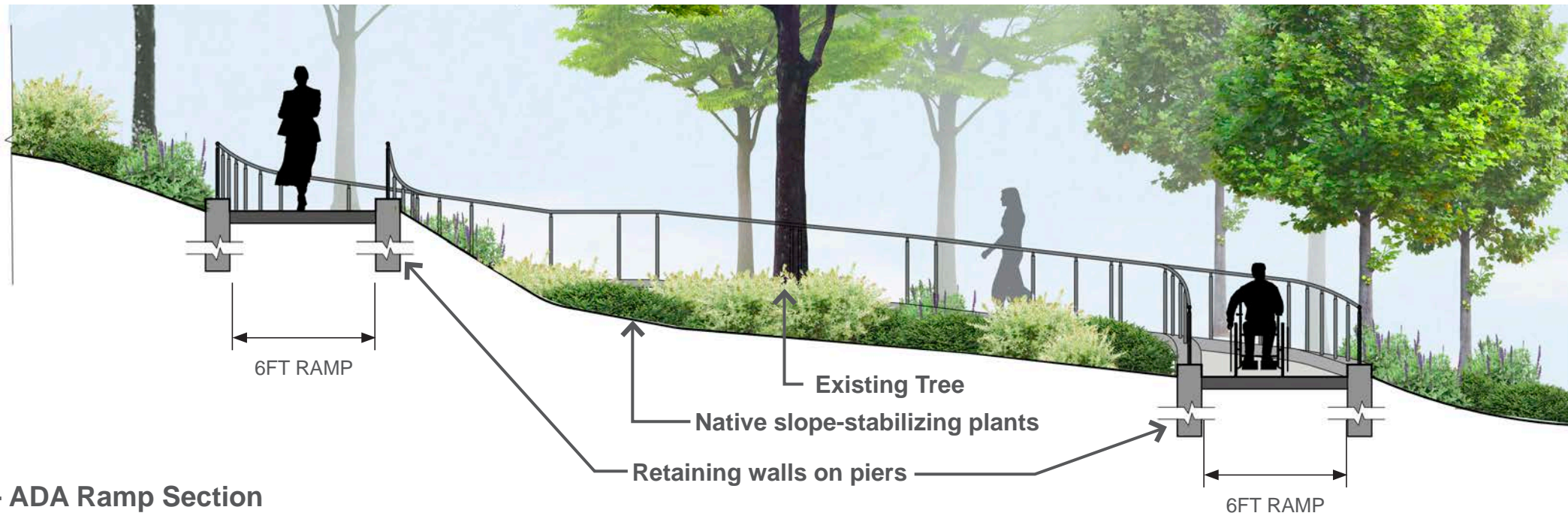
Bronx Park East Botanical Garden Pedestrian Access Ramp | Wall and Curb Plan





6 inch curb with planted slope beyond
 Concrete steps
 Hex block

1 - Step-ramp

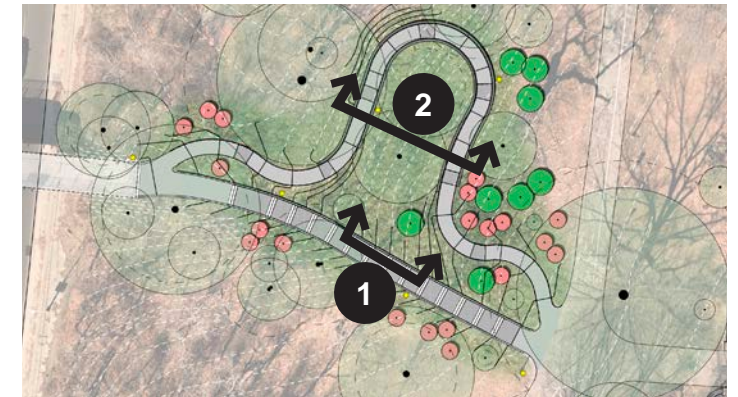


6FT RAMP

Existing Tree
 Native slope-stabilizing plants
 Retaining walls on piers

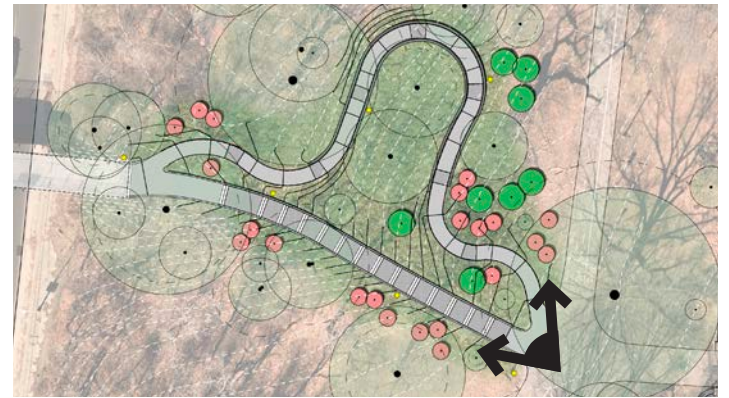
6FT RAMP

2 - ADA Ramp Section

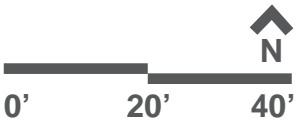


Bronx Park East Botanical Garden Pedestrian Access Ramp | Sections





Bronx Park East Botanical Garden Pedestrian Access Ramp | Perspective Rendering





Hex Block



Concrete Steps



Cast-In-Place Concrete



Handrails



Type B Luminaire and Pole





Quercus bicolor



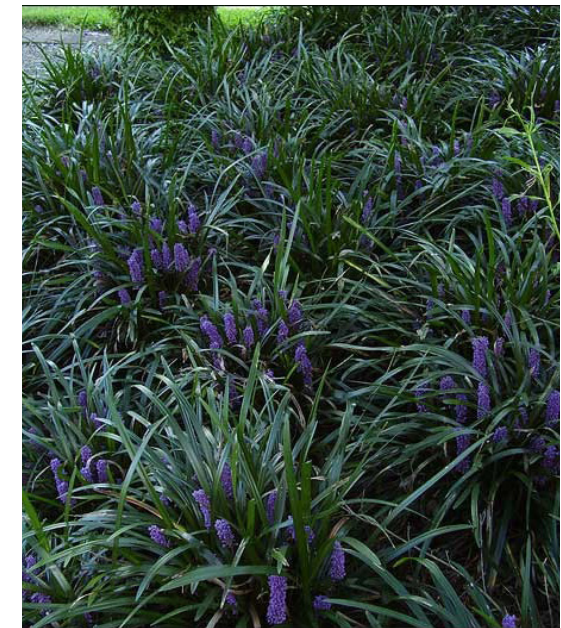
Acer rubrum



Cornus florida



Euonymus 'Manhattan'



Liriope muscari



Nyssa sylvatica



Cercis canadensis



Clethra alnifolia 'Hummingbird'



Fothergilla gardenii










'Gro-low' Sumac





Legend

-  Canopy
-  Existing Tree
-  Critical Root Zone
-  Proposed Canopy Tree
-  Proposed Understory Tree
-  Light Pole
-  Proposed Contour



Bronx Park East Botanical Garden Pedestrian Access Ramp | Schematic Plan

